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Diffraction of an elastic wave by the jump inhomogeneity in the elastic layer

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Abstract

The two-dimensional problem of diffraction of an elastic harmonic wave by the jump inhomogeneity in material filling a planar elastic waveguide with rigidly fixed walls is investigated. A special treatment was used to define the inner product. A proof of the theorem of equivalence of the problem to the infinite system of linear algebraic equations is given. The obtained system is solved by the truncation method. An example of numerical results is provided.

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